RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _____ *09/474, 435A*

Source: _____ *JFWO*

Date Processed by STIC: _____ *07/29/2005*

ENTERED

CRF Errors Edited by the STIC Systems Branch

Serial Number: _09/474,435A_

CRF Edit Date: _08/03/2005_
Edited by: _DA_

____ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

____ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

____ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

____ Deleted: ___ invalid beginning/end-of-file text ; ___ page numbers

____ Inserted mandatory headings/numeric identifiers, specifically:

_____

____ Moved responses to same line as heading/numeric identifier, specifically:

_____

Other: _Corrected Wrong numeric Identifier_ ,

_____

_____

Revised 09/09/2003

RAW SEQUENCE LISTING   DATE: 08/04/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 14:36:07

Input Set : **N:\DA\09474435.raw**
Output Set: **N:\CRF4\08042005\I474435A.raw**

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 2        Liu, Jingdong
 4 <120> TITLE OF INVENTION: ARABIDOPSIS THALIANA GENOME SEQUENCE AND USES THEREOF
 6 <130> FILE REFERENCE: 38-21(15473)B
 8 <140> CURRENT APPLICATION NUMBER: US 09/474,435A
 9 <141> CURRENT FILING DATE: 1999-12-28
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12 <151> PRIOR FILING DATE: 1998-06-16
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C p9-b)

RAW SEQUENCE LISTING   DATE: 08/04/2005
PATENT APPLICATION: US/09/474,435A   TIME: 14:36:07

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Output Set: **N:\CRF4\08042005\I474435A.raw**

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RAW SEQUENCE LISTING   DATE: 08/04/2005
PATENT APPLICATION: US/09/474,435A   TIME: 14:36:07

Input Set : N:\DA\09474435.raw
Output Set: N:\CRF4\08042005\I474435A.raw

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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/04/2005
PATENT APPLICATION: US/09/474,435A   TIME: 14:36:08

Input Set : **N:\DA\09474435.raw**
Output Set: **N:\CRF4\08042005\I474435A.raw**

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

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Seq#:3; N Pos. 346,373,472
Seq#:5; N Pos. 1588,1589,1590,1591,1592,1593,1594,1595,1596,1597,1598,1599
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Seq#:7; N Pos. 5244,5245,5246,5247,5248,5249,5250,5251,5252,5253,5254,5255
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Seq#:7; N Pos. 5268,5269
Seq#:9; N Pos. 4004
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Seq#:14; N Pos. 891,892,893,894
Seq#:16; N Pos. 972
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Seq#:25; N Pos. 197,198,199,200,201,202,203
Seq#:27; N Pos. 897
Seq#:32; N Pos. 451,504
Seq#:46; N Pos. 2549,2550,2551,2552,2553,2554,2555,2556,2557,2558,2559,2560
Seq#:46; N Pos. 2561,2562,2563,2564,2565
Seq#:50; N Pos. 5465
Seq#:55; N Pos. 246,247,248,249,250,251,252,253,254,255,256,257,258,259,260
Seq#:55; N Pos. 261,262,263,264,265,266,267,268,269,270,271,272,273,274,275
Seq#:55; N Pos. 276,277,278,279,280,281,282,283,284,285,286,287,288,289,290
Seq#:55; N Pos. 291,292,293,294,295,296,297,298
Seq#:63; N Pos. 51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70
Seq#:63; N Pos. 408
Seq#:66; N Pos. 1131
Seq#:71; N Pos. 429,478
Seq#:75; N Pos. 1222,1237
Seq#:81; N Pos. 782,783,784,785,786,787,788,789,790,791,792,793,794,795,796
Seq#:81; N Pos. 797,798
Seq#:85; N Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
Seq#:92; N Pos. 4696,4697,4698,4699,4700,4701,4702,4703,4704,4705,4706,4707
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Seq#:95; N Pos. 2790,2791,2792,2793,2794,2795,2796,2797,2798,2799
Seq#:101; N Pos. 3415,3416,3417,3418,3419,3420,3421,3422,3423,3424,3425
Seq#:101; N Pos. 3426,3427,3428,3429,3430,3431,3432,3433,3434,3435,3436
Seq#:101; N Pos. 3437,3438,3439,3440,3441,3442,3443,3444,3445,3446,3447
Seq#:102; N Pos. 442,443,444,445,446,447,448,449,450,451,452,453,454,455
Seq#:102; N Pos. 456,457,458,459,460,461,462,463,464,465,466,467,468,469
Seq#:102; N Pos. 594,624,630,632,633,635,641,642

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 08/04/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 14:36:08

Input Set : **N:\DA\09474435.raw**
Output Set: **N:\CRF4\08042005\I474435A.raw**

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Seq#:106; N Pos. 6637,6638,6639,6640,6641,6642,6643,6644,6645,6646,6653
Seq#:106; N Pos. 6654,6655,6656,6657,6658,6659,6660,6661,6662,6663,6664
Seq#:106; N Pos. 6665,6666,6667,6668,6669,6670,6671,6672,6673,6674,6675
Seq#:106; N Pos. 6676,6677,6678
Seq#:109; N Pos. 193,194,195,196,197,198,199,200,201,202,203,204,205,206
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L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:300
M:341 Repeated in SeqNo=3
L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1560
L:802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:5220
L:1235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:3960
L:1602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:840
L:1719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:960
L:2384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:180
L:2499 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:840
L:2844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:420
M:341 Repeated in SeqNo=32
L:3611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:2520
L:3986 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:5460
L:4267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:240
L:5290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
M:341 Repeated in SeqNo=63
L:5463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:1080
L:5708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:420
L:6249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:1200
L:6940 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:780
L:7081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
M:341 Repeated in SeqNo=85
L:7760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92 after pos.:4680
L:7851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:1380
L:8284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:2700
M:341 Repeated in SeqNo=95
L:8985 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:3360
M:341 Repeated in SeqNo=101
L:9020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102 after pos.:420
M:341 Repeated in SeqNo=102
L:9201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:4800
L:9622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:6600
M:341 Repeated in SeqNo=106
L:9735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:180
M:341 Repeated in SeqNo=109
L:10526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:10080
L:11587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:5220
M:341 Repeated in SeqNo=125
L:11916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:3900
M:341 Repeated in SeqNo=127
L:12293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:7620
M:341 Repeated in SeqNo=128
L:13406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:4620
M:341 Repeated in SeqNo=133
L:15137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:1920
M:341 Repeated in SeqNo=155
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VERIFICATION SUMMARY   DATE: 08/04/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 14:36:08

Input Set : **N:\DA\09474435.raw**
Output Set: **N:\CRF4\08042005\I474435A.raw**

L:15238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:480
M:341 Repeated in SeqNo=156

Raw Sequence Listing before editing,
for reference only

IFWO

```
      RAW SEQUENCE LISTING              DATE: 07/29/2005
      PATENT APPLICATION:  US/09/474,435A    TIME: 11:32:18

      Input Set : E:\pa_00262.rpt
      Output Set: N:\CRF4\07292005\I474435A.raw
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 1 <110> APPLICANT: Kovalic, David K.
 2        Liu, Jingdong
 4 <120> TITLE OF INVENTION: ARABIDOPSIS THALIANA GENOME SEQUENCE AND USES THEREOF
 6 <130> FILE REFERENCE: 38-21(15473)B
 8 <140> CURRENT APPLICATION NUMBER: US 09/474,435A
 9 <141> CURRENT FILING DATE: 1999-12-28
11 <150> PRIOR APPLICATION NUMBER: US 60/089,524
12 <151> PRIOR FILING DATE: 1998-06-16
14 <150> PRIOR APPLICATION NUMBER: US 60/089,516
15 <151> PRIOR FILING DATE: 1998-06-16
17 <150> PRIOR APPLICATION NUMBER: US 60/089,808
18 <151> PRIOR FILING DATE: 1998-06-18
20 <150> PRIOR APPLICATION NUMBER: US 60/089,812
21 <151> PRIOR FILING DATE: 1998-06-18
23 <150> PRIOR APPLICATION NUMBER: US 60/089,807
24 <151> PRIOR FILING DATE: 1998-06-18
26 <150> PRIOR APPLICATION NUMBER: US 60/089,806
27 <151> PRIOR FILING DATE: 1998-06-18
29 <150> PRIOR APPLICATION NUMBER: US 60/089,811
30 <151> PRIOR FILING DATE: 1998-06-18
32 <150> PRIOR APPLICATION NUMBER: US 60/089,813
33 <151> PRIOR FILING DATE: 1998-06-18
35 <150> PRIOR APPLICATION NUMBER: US 09/333,534
36 <151> PRIOR FILING DATE: 1999-06-14
38 <150> PRIOR APPLICATION NUMBER: US 60/111,990
39 <151> PRIOR FILING DATE: 1998-12-14
41 <150> PRIOR APPLICATION NUMBER: US 60/111,991
42 <151> PRIOR FILING DATE: 1998-12-14
44 <150> PRIOR APPLICATION NUMBER: US 60/114,151
45 <151> PRIOR FILING DATE: 1998-12-29
47 <150> PRIOR APPLICATION NUMBER: US 60/155,422
48 <151> PRIOR FILING DATE: 1999-09-23
50 <150> PRIOR APPLICATION NUMBER: US 60/143,994
51 <151> PRIOR FILING DATE: 1999-07-15
53 <150> PRIOR APPLICATION NUMBER: US 60/139,932
54 <151> PRIOR FILING DATE: 1999-06-21
56 <150> PRIOR APPLICATION NUMBER: US 60/135,825
57 <151> PRIOR FILING DATE: 1999-05-24
59 <150> PRIOR APPLICATION NUMBER: US 60/120,644
60 <151> PRIOR FILING DATE: 1999-02-18
62 <150> PRIOR APPLICATION NUMBER: US 09/459,109
W--> 63 <150> PRIOR APPLICATION NUMBER: 1999-12-13
W--> 65 <150> PRIOR APPLICATION NUMBER: US 09/459,110
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(Cpg-6)

Does Not Comply
Corrected Diskette Needed

(Pg-1)

RAW SEQUENCE LISTING   DATE: 07/29/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 11:32:18

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

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 72 <211> LENGTH: 576
 73 <212> TYPE: DNA
 74 <213> ORGANISM: Arabidopsis thaliana landsberg
 76 <220> FEATURE:
 77 <221> NAME/KEY: unsure
 78 <222> LOCATION: (1)..(576)
 79 <223> OTHER INFORMATION: unsure at all n locations
 81 <400> SEQUENCE: 1
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 87 ctgtcattga gatgatatta gtgcatgcac atgaactcgg gaaaaagttt cgtgtctttg  180
 89 tggtggattc tcgaccaaag cttcaaggga agctactgct tcgtagattg atcaaacgag  240
 91 gcattaactg tacatacact catataactg ccatatcata tatcatgcac caagtcacca  300
 93 aagtgttttt gggcgcctca tcagtttttt ctaacggaac agtttactca agggttggca  360
 95 ctgcttgtgt tgcaatggtg gctaatgctt tccgtgttcc tgtgcttgtt tgttgcgaag  420
 97 cctataagtt ccatgagaag gtgcagttgg attattcaat atgctccaat gagctcggtg  480
 99 atccaaatgc tatttcaaaa gttcatggaa gagaagacat aaactactta aatggcttga  540
101 ccaacaatgc anagctgaag tttctgaact tgatgt                            576
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 661
106 <212> TYPE: DNA
107 <213> ORGANISM: Arabidopsis thaliana landsberg
109 <400> SEQUENCE: 2
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115 ttggtggatc caaatccgac tgggttatgc acgagtacca tgctttctct cctactcagg  180
117 ttttttttcc ctctgttttt gctctttacc gtgatttgat tgctcgtttt cgtgtatcgg  240
119 gtgattgtga tttgactgaa tgttttttac agatgatgat gacatataca atatgtaaag  300
121 ttatgtttaa gggtgacgtg agagagattt cttcttcttc tgcttcttct tatggtagtg  360
123 aaattgagca gagtcgtgac tctttaatcc ctcttcttgt gaacgattct gaggtttgtc  420
125 gatctcaaaa ctttctctgt ttctctttta aatccgataa ctgacttgtt ttgttggttg  480
127 gtgatgtgca ggaagaagct caaatcgagg atgctatacc aatagaggaa tgggaaacat  540
129 ggttgactga tgatggtgtt gatgagcagg tgaatcatat tatgaatatg aaagatgatc  600
131 gcaacaacca caggcctcaa aagccattga ctggtgtctt gattgacgat agtagtgatg  660
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137 <211> LENGTH: 492
138 <212> TYPE: DNA
139 <213> ORGANISM: Arabidopsis thaliana landsberg
141 <220> FEATURE:
142 <221> NAME/KEY: unsure
143 <222> LOCATION: (1)..(492)
144 <223> OTHER INFORMATION: unsure at all n locations
146 <400> SEQUENCE: 3
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```

RAW SEQUENCE LISTING   DATE: 07/29/2005
PATENT APPLICATION: US/09/474,435A   TIME: 11:32:18

Input Set : E:\pa_00262.rpt
Output Set: N:\CRF4\07292005\I474435A.raw

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        156 ctttcttata acaatcaaaa ctcttggcag ctactgaata tggagcactt cgatgatgtt  300
W-->    158 tggcaagatg gccaatgaag tgtctatgcc ccggatgctc gcgttntgac tacatattat  360
        160 tgtggtatga ttntcctttt ttctggaatt catgagctaa ttgattctct tcttctctct  420
        162 tttacttcat gtttttcgtgg ctttatcttc ctgttgaaat gaactcttaa tngctaaccc  480
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        169 <212> TYPE: DNA
        170 <213> ORGANISM: Arabidopsis thaliana landsberg
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        178 ttaaacattg atggttacca aaaatctact tgcagaatct ttgacactgt cttgaatgtc  180
        180 gcgaagtgga caccatatgc agagccgtgg caatgtagca ggataccttc tacttcatct  240
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        200 agctcaaatt gccttaagct tactccctca aataagagat cgtcgttagc actttgataa  840
        202 taggttttta gtcaattatc ctaaaacacc aatcatgtca ttgtagtatt ttaggttgtc  900
        204 aatccaaatg ggtgtgatgc taacaatcaa gatgtgatca gaagtcacta agtcaagcca  960
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        208 caaacagaaa cagtaaaaca ctcgaccaac acagctcttt gtagagctct gggtgaggtc 1080
        210 gagtgacagg tcgagtaaca gacaggaaat gaaacaggga tactcgactg cacagtctgt 1140
        212 tgccagacaa ctgggtggtc gagtatcagg tcgactaaca gtaaagattt gcagaaacta 1200
        214 aacaacagat gacaggatgt agtaaacagt agtagagtaa acaataaaat caattagata 1260
        216 aagaattcct aaggatggga taattgagta gtttcgtttc ctcagtttac aggtgattga 1320
        218 catgctcaat aaattaaccc tagacaacaa gttcattaac taaatctaag tgccaccgca 1380
        220 acagagactc tcaagctaac ctagtcccag actcaatcac cattgacgag agctaaccta 1440
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        226 ggaaatgtct gggctcaaat tccagttgat cagaaagcaa taggcattaa gaacaactaa 1620
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252 ctcttgagat cttgaagctc ctactcgacc tctgggtcga gtgatttatc atgatcaggt 2400
254 ccgcttcttc cagatagctc gtcaacagct ccaaatcacc ttaaatcaac gcaaatatgc 2460
256 aacatgcatg caaaactatc ctaaacatgc aaagtgatga caaatgatgt gaaatggtat 2520
258 gaaacaatga tgatatgatg ctaaagtgat gacaaatgga tgctcaaaac atgcaaaata 2580
260 cacacttatc accaagtgat taccttcttt gcaaactctt cctccactct cttgcgagca 2640
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266 ctcaagctcc acccgaatcc cttagagcag cttggctccg tatcagatct tattagcgtg 2820
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270 ccaagccata ccggactcaa cttgatgcag cgagctactg taacttcatg acaagaacta 2940
272 ctagtgaagc attactcctc attaccaatg cttttaactag tctttcgaca caggaagttg 3000
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276 taatttctgc tcctatccaa gccccccct ccaccttcct tagacagcag acttgattcc 3120
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280 gattctctct atacagatct aaatagcacg attgacaatc tacgctctca tataacggaa 3240
282 ccctcaccta catcagcctc tatcaatgca gtcacattac gcaatggaaa gcaactgaat 3300
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286 tcagttcgat tgacaccaat cactcttgac gactctgttt tgcctttgtc gagtgaaatc 3420
288 gacaatttcg tggaggagga ggaaattatt cccgatggtg tcgatcgaca cccagctcgt 3480
290 tcagacaatg tgcaaattca agctaaaacc aagtcagcaa atcggcaaat tcctttcccc 3540
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306 catgattcct atagacttcg tagtcttgcc ttatgagaag gaacctaagg atccattaat 4020
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324 cgcagagctc accttattgc taagcaagct gcgcaatcat cgcaaagctc ttggctattc 4560
326 tcttgatgac attgcaggta tatctccaga tgtatgcatg cataggattc accttgagga 4620
328 tgagtctaag tcttcgttga acatcagaga aggctgaatc cgaatctgaa agaagtggtt 4680
330 aagaaagaga ttatgaagct gttggaagca gggattatta atccgatttc agatagcagt 4740
332 tgggttagtc cagtttatgt agttcctaag aaaggagctg ttggaagcag ggattatcta 4800
334 ttcgatcttt gttatgctcc ttcaacattt cagagaggta tgatgtctat cttcacagac 4860
336 atgattgagg atatcatgga ggtcttcatg gatgatttt cagtttatgg atcatcgttt 4920
338 gaggattgct tagagaatct ctgcaaagta ttagcaagat gtgaggcaaa acatctggtt 4980
340 ttgaattggg agaaatgtca ctttatgatg taggatgaga tagttctcgg tcatagaatt 5040
342 tttgagcatg gtatagaagt cgatagagct aagatcgaag ttatgacaag tcttcgagcg 5100
344 cccgataatg ttaaagcaat gaggagtttc cttggacatg ctcgtttcta taggagattc 5160
```

RAW SEQUENCE LISTING   DATE: 07/29/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 11:32:18

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

```
346 atcaaaggtt ttaggaaaat tgcaagacca ttgaccgctt tactctgtaa agaagttaaa 5220
348 ttcgaatttt acataagagt gtcattgttg gacatgggca ttgccccttc aatgttagga 5280
350 ggcccaaaac agatatcaac aaagaagagg gccttttgcc attaaaaagg cccattaggt 5340
352 cgagaagggc aaaatcataa tttgcaaggg agacagaacg gaatttaggg ttcagattcc 5400
354 ctataaatag agagaaacac tattgggagc aagatccgat ccacaggtta ttagctgaga 5460
356 gacaaagaga atcgttgcct tgcccgaaat cgttgcctag cccgacctcg ttgcctagcc 5520
358 cgacatcggt gcctcgccca tttctgtact ttgtctttct gcttttacga tgaagttctc 5580
360 ggctcggcag gatagtctat aaccggcgag acaaaactag tttgctgtaa tctctcgatc 5640
362 tttgttatcg ttaataaaat ggaccaactc cgttcagccc ccaaaatctc gtatattatt 5700
364 attattattg catccccaat acaaataatt gacgcccact gtggggccgt tgatcgaagc 5760
366 tatccttttt tgacgagcct atgcatcctg accctcacaa gattcgcggt gatatgatag 5820
368 atacttccag cgatcgagaa actgatactg gcatacctca agcgcccgac gcgctgggct 5880
370 tacctccgct caacccagca gccatccgtg ccgagcatga tccctcgcgc cgaatcttgt 5940
372 tcacaccaga cacaggagga gaaacagatc atgttcaggt cgcacgacct cctgccgcgc 6000
374 ctacccccct cgcagtagct ccagccgacg aagcgaccgc agctgcagca gcagcagcaa 6060
376 aaggcgccgc tcaaagacgt accacaacag cagaacgagg cacccattta gacgacctcg 6120
378 ttcaaaccat tcttgatcga ctcgacggac aggaagcacg aactaccgaa cggattgacg 6180
380 cctttgtggc agcacaagtc acttcccaga gtcagatcga gcggcttcga cgccgaaaac 6240
382 acacctccca acctcatgac aatcacgatg gacagcagtc tccgcgaact ccagtcaccg 6300
384 agcgctcaga gacccatcgc cgtagaccag cgtcagttat cgtaggattc atcgacgagc 6360
386 attctcgcgg tagcccacaa gatgaccaca acctacagaa cgaccacaat atgcagagcg 6420
388 gccccaacct gccgagcggt cacaacctgc agaacaaaca caaccagcag agcggccaca 6480
390 acgtgaaaaa cggccacaac cagcagaatg gccacaacaa gcagagcggc tccaacctgc 6540
392 ggaacgtgca caacatgttg cctaacacca actatccgca gagtaatcat aatctgaacg 6600
394 accacgatct cgcgagaggt caaaatctgc caagcgacca gtattttccg aataaccaaa 6660
396 ctctcgagtg caggcggatc ttttcggatc gacctatcga agttgaaaac cgatcccgcg 6720
398 atctggaact tgcacggttg aacgcggtaa caagagatat gtcttccaaa atgaattggg 6780
400 ccaccaccgc ggcccccgaa ctagagaggg tgttggaaga aacacaacgc tcgcccttca 6840
402 cggcgcgtct ctcggcagta cgcgtttgtc atgttaataa agtcaagcta ataccataca 6900
404 acggtcttac cgaccccaag atcttcctta aatcaatgtg cattgccatc aatggtgcac 6960
406 attttttctg ctaaagaaag tgatgctaga agttgccaaa tgttcttgga aaacctgact 7020
408 gcagacgcac tcaactggtt ctcgcgaatc ggagccaatt caatcgatag ctaccgaaaa 7080
410 cttacatctt tattcctgca gcaccactcg gttttcatga ttaaggaggc cacaaacgcc 7140
412 gacttgtgga ccatgtctca gaaggaaagc gaaccactta gaactgtcat tgaaagattc 7200
414 aagaaggttg tctcgaatat agccataact gatgatgcgg ctatcggggc tctacgaaac 7260
416 gcgttaagtt tcggatcacg gtttagagaa                                  7290
419 <210> SEQ ID NO: 5
420 <211> LENGTH: 1864
421 <212> TYPE: DNA
422 <213> ORGANISM: Arabidopsis thaliana landsberg
424 <220> FEATURE:
425 <221> NAME/KEY: unsure
426 <222> LOCATION: (1)..(1864)
427 <223> OTHER INFORMATION: unsure at all n locations
429 <400> SEQUENCE: 5
431 tttagagtga gttttgtgtt aaagatattt atttacctga cattatgaca atttctaata   60
433 accacataaa tagttacaca aaagaattta gagtgagttt tgtgttaaag atacgacata  120
435 acatttttct aatgacatta cagggaatgg cattactgac actatcagta tcgctaccgg  180
437 gacttaaacc accgaaatgt tcgacggcta atgttgaaaa ctgtgaaaaa gcttcggtta  240
```

<u>Please Note:</u>
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 22,55,61,90,92,552
Seq#:3; N Pos. 346,373,472
Seq#:5; N Pos. 1588,1589,1590,1591,1592,1593,1594,1595,1596,1597,1598,1599
Seq#:5; N Pos. 1600,1601,1602,1603,1604,1605,1606
Seq#:7; N Pos. 5244,5245,5246,5247,5248,5249,5250,5251,5252,5253,5254,5255
Seq#:7; N Pos. 5256,5257,5258,5259,5260,5261,5262,5263,5264,5265,5266,5267
Seq#:7; N Pos. 5268,5269
Seq#:9; N Pos. 4004
Seq#:14; N Pos. 876,877,878,879,880,881,882,883,884,885,886,887,888,889,890
Seq#:14; N Pos. 891,892,893,894
Seq#:16; N Pos. 972
Seq#:25; N Pos. 182,183,184,185,186,187,188,189,190,191,192,193,194,195,196
Seq#:25; N Pos. 197,198,199,200,201,202,203
Seq#:27; N Pos. 897
Seq#:32; N Pos. 451,504
Seq#:46; N Pos. 2549,2550,2551,2552,2553,2554,2555,2556,2557,2558,2559,2560
Seq#:46; N Pos. 2561,2562,2563,2564,2565
Seq#:50; N Pos. 5465
Seq#:55; N Pos. 246,247,248,249,250,251,252,253,254,255,256,257,258,259,260
Seq#:55; N Pos. 261,262,263,264,265,266,267,268,269,270,271,272,273,274,275
Seq#:55; N Pos. 276,277,278,279,280,281,282,283,284,285,286,287,288,289,290
Seq#:55; N Pos. 291,292,293,294,295,296,297,298
Seq#:63; N Pos. 51,52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70
Seq#:63; N Pos. 408
Seq#:66; N Pos. 1131
Seq#:71; N Pos. 429,478
Seq#:75; N Pos. 1222,1237
Seq#:81; N Pos. 782,783,784,785,786,787,788,789,790,791,792,793,794,795,796
Seq#:81; N Pos. 797,798
Seq#:85; N Pos. 56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72
Seq#:92; N Pos. 4696,4697,4698,4699,4700,4701,4702,4703,4704,4705,4706,4707
Seq#:92; N Pos. 4708,4709,4710,4711,4712,4713
Seq#:93; N Pos. 1416
Seq#:95; N Pos. 2717,2718,2719,2720,2721,2722,2723,2724,2725,2726,2727,2728
Seq#:95; N Pos. 2729,2730,2731,2732,2733,2734,2735,2736,2737,2738,2739,2740
Seq#:95; N Pos. 2741,2742,2743,2744,2745,2746,2747,2748,2749,2750,2751,2777
Seq#:95; N Pos. 2778,2779,2780,2781,2782,2783,2784,2785,2786,2787,2788,2789
Seq#:95; N Pos. 2790,2791,2792,2793,2794,2795,2796,2797,2798,2799
Seq#:101; N Pos. 3415,3416,3417,3418,3419,3420,3421,3422,3423,3424,3425
Seq#:101; N Pos. 3426,3427,3428,3429,3430,3431,3432,3433,3434,3435,3436
Seq#:101; N Pos. 3437,3438,3439,3440,3441,3442,3443,3444,3445,3446,3447
Seq#:102; N Pos. 442,443,444,445,446,447,448,449,450,451,452,453,454,455
Seq#:102; N Pos. 456,457,458,459,460,461,462,463,464,465,466,467,468,469
Seq#:102; N Pos. 594,624,630,632,633,635,641,642

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 07/29/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 11:32:19

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

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Seq#:103; N Pos. 4855
Seq#:106; N Pos. 6626,6627,6628,6629,6630,6631,6632,6633,6634,6635,6636
Seq#:106; N Pos. 6637,6638,6639,6640,6641,6642,6643,6644,6645,6646,6653
Seq#:106; N Pos. 6654,6655,6656,6657,6658,6659,6660,6661,6662,6663,6664
Seq#:106; N Pos. 6665,6666,6667,6668,6669,6670,6671,6672,6673,6674,6675
Seq#:106; N Pos. 6676,6677,6678
Seq#:109; N Pos. 193,194,195,196,197,198,199,200,201,202,203,204,205,206
```

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/474,435A**

DATE: 07/29/2005
TIME: 11:32:19

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

```
L:63 M:289 W: Identifier Missing or Out-Of-Order, <150> PRIOR APP FILING DATE
L:65 M:289 W: Identifier Missing or Out-Of-Order, <150> PRIOR APP FILING DATE
L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:300
M:341 Repeated in SeqNo=3
L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:1560
L:802 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:5220
L:1235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:3960
L:1602 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:840
L:1719 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:960
L:2384 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:180
L:2499 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:840
L:2844 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:420
M:341 Repeated in SeqNo=32
L:3611 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:2520
L:3986 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:5460
L:4267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:240
L:5290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0
M:341 Repeated in SeqNo=63
L:5463 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:1080
L:5708 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:420
L:6249 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:1200
L:6940 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:81 after pos.:780
L:7081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:85 after pos.:0
M:341 Repeated in SeqNo=85
L:7760 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:92 after pos.:4680
L:7851 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:93 after pos.:1380
L:8284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:95 after pos.:2700
M:341 Repeated in SeqNo=95
L:8985 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:101 after pos.:3360
M:341 Repeated in SeqNo=101
L:9020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:102 after pos.:420
M:341 Repeated in SeqNo=102
L:9201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 after pos.:4800
L:9622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:106 after pos.:6600
M:341 Repeated in SeqNo=106
L:9735 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:180
M:341 Repeated in SeqNo=109
L:10526 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:117 after pos.:10080
L:11587 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:5220
M:341 Repeated in SeqNo=125
L:11916 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:3900
M:341 Repeated in SeqNo=127
L:12293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:128 after pos.:7620
M:341 Repeated in SeqNo=128
L:13406 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:133 after pos.:4620
M:341 Repeated in SeqNo=133
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VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/474,435A**

DATE: 07/29/2005
TIME: 11:32:19

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

L:15137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:1920
M:341 Repeated in SeqNo=155
L:15238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:480
M:341 Repeated in SeqNo=156

STATISTICS SUMMARY   DATE: 07/29/2005
PATENT APPLICATION: **US/09/474,435A**   TIME: 11:32:20

Input Set : **E:\pa_00262.rpt**
Output Set: **N:\CRF4\07292005\I474435A.raw**

Application Serial Number: US/09/474,435A
Alpha or Numeric or Xml: Numeric
Application Class:
Application File Date: 12-28-1999
Art Unit: IFWO
Software Application:
Total Number of Sequences: 195836
Total Nucleotides: 167769494
Total Amino Acids: 0
Number of Errors: 0
Number of Warnings: 112071
Number of Corrections: 0

MESSAGE SUMMARY

289 W: 2 (Identifier Missing or Out-Of-Order)
341 W:112069 ((46) "n" or "Xaa" used)